

South Dakota Pandemic Influenza

Draft Plan (pre-final National Plan)

South Dakota Department of Health
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Acknowledgments:

This plan has been developed following consultation with numerous health professionals and organizations throughout South Dakota. The present version reflects the contribution of representatives of state and local organizations who participated in the development of the Guidelines.

I. Introduction

Influenza viruses are unique in their ability to cause sudden, pervasive infection in all age groups on a global scale. Although influenza is a yearly seasonal illness, 3 influenza pandemics (global epidemics) have occurred in this century, one of which -- the infamous "Spanish flu" of 1918 -- was responsible for more than 20 million deaths worldwide and greater than 550 thousand deaths in the U.S. The more recent pandemics of 1957 (A/Asia [H2N2]) and 1968 (A/Hong Kong [H3N2]) had lower rates of morbidity and social disruption.

Influenza is a viral infection of the nose, throat, bronchial tubes and lungs. Typical flu symptoms include headache, fever, chills, cough and body aches which occur within 1 to 3 days after exposure to an infected person. Although most people are ill for only a few days, some people have a much more serious illness, such as pneumonia, and may need to be hospitalized. Approximately 36,000 people die each year in the United States from the flu or related complications. Influenza is highly contagious and is easily transmitted through contact with droplets from the nose and throat of an infected person who is coughing and sneezing.

There are 2 main types of Influenza virus, A and B. Influenza A can produce a mild to severe illness while Influenza B is typically mild or moderate. Each type includes many different strains which tend to change each year. These changes may be large (antigenic shift) or small (antigenic drift). Antigenic shift occurs in Influenza A and has been linked to the three influenza pandemics of the 20th century. Pandemics occur when an entirely new subtype of influenza A virus emerges (antigenic shift) through recombination of human and animal strains. Not all antigenic shifts cause a pandemic, but if a novel subtype is virulent and easily transmitted, a pandemic is possible.

Another pandemic is likely if not inevitable, yet no one can predict when. United States morbidity and mortality estimates for an influenza pandemic suggest up to 207,000 deaths, 734,000 hospitalizations, 42 million doctor visits, and 47 million additional sick individuals who do not seek formal medical treatment.

The response to pandemic influenza will use much the same infrastructure as that needed for response to bioterrorism events, this guide highlights areas that are specific to pandemic influenza and therefore require specific additional consideration. These priority areas are surveillance, delivery of vaccine and antiviral medication, and communication. The plan systematically addresses preparedness and response for each plan component for each of the pandemic influenza phases. This pandemic influenza plan is designed as an annex to the South Dakota All-Hazards Emergency Operations Plan and to the Strategic National Stockpile Plan.

Pandemic planning should be integrated with other ongoing public health preparedness activities. Periodic exercising of parts of the plan at the state, regional, and local levels will identify weaknesses and provide a basis for further planning. In addition to recognizing the dynamic nature of planning, it is also important to recognize the importance of coordination with neighboring tribes and bordering jurisdictions.

A. Pandemic Influenza Planning

Several features set pandemic influenza apart from other public health emergencies or community disasters:

- Influenza pandemics are expected but unpredictable.

- Outbreaks can be expected to occur simultaneously throughout much of the U.S., preventing shifts in human and material resources that usually occur in the response to other disasters. Localities should be prepared to rely on their own resources to respond. The effect of influenza on individual communities will be prolonged (weeks to months).
- The number of persons affected will be high.
- Health care workers and other first responders may be at higher risk of exposure and illness than the general population, further straining the health care system.
- and antiviral agents, will be delayed and in short supply, limiting effective prevention and therapeutic measures.
- Widespread illness in the community could increase the likelihood of sudden and potentially significant shortages of personnel in other sectors who provide critical public safety services.

II. Federal Roles

The federal government is responsible for nationwide coordination of the pandemic influenza response. Specific areas of responsibility include the following:

- Surveillance in the U.S. and globally in coordination with the World Health Organization.
- Epidemiological investigation in the U.S. and globally
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains and reagents for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for vaccination and antiviral use
- Assessment of measures to decrease transmission (such as travel restrictions, isolation, and quarantine)
- Deployment of federally purchased vaccine
- Deployment of antiviral agents in the Strategic National Stockpile
- Evaluation of the efficacy of response measures
- Evaluation of vaccine safety
- Deployment of the Commissioned Corps Readiness Force and Epidemic Intelligence Service officers
- Medical and public health communications

A. Assumptions

- Liability protection for vaccine manufacturers and persons who administer influenza vaccine will likely be made available through Congressional legislation. Currently there exists coverage for investigational new drug (IND) influenza vaccine under the Vaccine Injury Compensation Program.
- Although antiviral agents can theoretically be used for both treatment and prophylaxis during the next pandemic, these agents will likely be available only for limited distribution.
- Resources can be expected to be made available from the national level for plan implementation.

III. South Dakota Roles

South Dakota will be responsible for coordination of the pandemic influenza response within our jurisdiction and in partnership with neighboring states in coordination between jurisdictions.

Specific areas of responsibility include the following:

- Identification of public and private sector partners needed for effective planning and response.
- Development of key components of pandemic influenza preparedness plan: surveillance, distribution of vaccine and antivirals, and communications.
- Integration of pandemic influenza planning with other planning activities conducted under CDC and HRSA's bioterrorism preparedness cooperative agreements.
- Coordination with local officials to ensure development of local plans as called for by the state plan and provide resources, such as templates to assist in planning process.
- Development of data management systems needed to implement components of the plan.
- Assistance to local areas in exercising plans.
- Coordination with adjoining jurisdictions.

IV. The Executive Committee

The Executive Committee is responsible for planning, development, and review of the pandemic influenza plan. Committee members have been identified as the following:

- Governor's Office, As identified
- Secretary of Health, Doneen Hollingsworth
- Health and Medical Services Division Director, Laurie Gill
- State Epidemiologist, Lon Kightlinger
- Office of Emergency Management Director, Kristi Turman
- SD Public Health Laboratory Director, Mike Smith
- Public Information Officer, Barb Buhler
- Immunization Program Coordinator, Bonnie Jameson, acting.
- Office of Public Health Preparedness and Response Director, Bill Chalcraft
- Influenza Surveillance Coordinator, Josh Clayton
- State Veterinarian, Sam Holland, as necessary
- Attorney, Legal Services, Joan Schueller

The function of the committee will be to:

- Assure integration of pandemic influenza plan activities with other relevant plan activities
- Oversee planning, response, recovery and mitigation efforts
- Ensure that the pandemic plan is reviewed, exercised, and periodically revised

Collaboration with a wide variety of organizations in the private and public sector is a key component of the planning and review process. Some of the organizations identified for this process include:

- Communicable diseases personnel
 - Disease Prevention Field Services Supervisor, Susan Gannon (Aberdeen, Watertown, Sioux Falls, Rapid City, Pierre, Dupree field offices)
 - Community Health Services Administrator, Darlene Bergeleen (Community Health Nurses in all counties)
 - State Epidemiologist, Lon Kightlinger

- Disease Surveillance Manager, Nick Hill
 - Disease Surveillance Coordinator, Linda Schaefer
 - Influenza Surveillance Coordinator, Josh Clayton
 - Office of Disease Prevention Administrator, Bonnie Jameson
- Infectious Disease physicians
 - Dr. James Keegan, Rapid City
 - Dr. Jorge Reyno, Rapid City
 - Dr. Aris Assimacopoulos, Sioux Falls
 - Dr. Wendell Hoffman, Sioux Falls
 - Dr. Veronica Sanchez, Sioux Falls
 - Dr. Rabiul Alam, Sioux Falls
 - Dr. Jawad Nazir, Sioux Falls
 - Dr. Asas Ansari, Sioux Falls
 - Dr. Manuel Arbo, Sioux Falls
- Laboratory personnel
 - SD Public Health Laboratory Director, Mike Smith
 - SD Public Health Laboratory, Medical Administrator, Yvette Thomas
 - Animal Disease Research and Diagnostic Laboratory, David Zeman, Brookings
 - Avera Courier Service, John Kangas
- Immunization program personnel
 - Immunization Program Coordinator, Bonnie Jameson, Acting
 - Immunization Registry Coordinator, Tammy LeBeau
 - Community Education Coordinator & VAERS Coordinator, Jean Salonen
- Pharmacists
 - State Pharmacist, Bob Coolidge
- Community immunizers
 - Administrator of Community Health Services, Darlene Bergeleen
- Private laboratories which may process clinical specimens for influenza
 - USD Virology Lab in Sioux Falls, Dr. Ohrt, Director, Dr. Cook, his designee, Jo Tichota-Lee, Lab Manager
 - USD Virology Lab in Rapid City
- Hospitals
 - SD Association of Hospital Organizations (SDAHO)
 - Aberdeen Area Indian Health Service
 - Sioux Valley Hospital, Sioux Falls
 - Avera McKennan Hospital, Sioux Falls
 - Rapid City Regional Hospital, Rapid City
 - Avera St. Lukes Hospital, Aberdeen
 - Avera Queen of Peace Hospital, Mitchell
 - Avera Sacred Heart Hospital, Yankton
 - St Mary's Hospital, Pierre
 - Lookout Memorial Hospital, Spearfish
 - Huron Regional Hospital, Huron
 - Brookings Hospital, Brookings
 - Prairie Lakes Healthcare Center, Watertown
 - Avera St Benedict's Health Center, Parkston

- Avera Wesskota Memorial Medical Center, Wessington Springs
- Bennett Co. Healthcare Center, Martin
- Bowdle Healthcare Center, Bowdle
- Canton-Inwood Memorial Hospital, Canton
- Children's Care Hospital and School < Sioux Falls
- Community Memorial Hospital, Redfield
- Community Memorial Hospital, Burke
- Coteau des Prairie Hospital, Sisseton
- Custer Community Hospital, Custer
- Dells Area Health Center, Dell Rapids
- DeSmet Memorial Hospital, DeSmet
- Deuel Co. Memorial Hospital, Clear Lake
- Douglas Co Memorial Hospital, Armour
- Eureka Community Health Services, Eureka
- Fall River Hospital, Hot Springs
- Faulk Co Memorial Hospital, Faulkton
- Five Counties Hospital, Lemmon
- Flandreau Municipal Hospital, Flandreau
- Fort Meade Veterans Administration Medical Center, Fort Meade
- Freeman Community Hospital, Freeman
- Gettysburg Memorial Hospital, Gettysburg
- Gregory Community Hospital, Gregory
- Hand Co Memorial Hospital, Miller
- Heart Hospital of South Dakota, Sioux Falls
- Holy Infant Hospital, Hoven
- Hot Springs Veterans Administration Medical Center, Hot Springs
- Lake Area Hospital, Webster
- Landmann-Jungman Memorial Hospital, Scotland
- Madison Community Hospital, Madison
- Marshall City Memorial Hospital, Britton
- Mid-Dakota Hospital, Chamberlain
- Mobridge Regional Hospital, Mobridge
- Northern Hills General Hospital, Deadwood
- Philip Health Services, Philip
- Pine Ridge Indian Health Center, Pine Ridge
- Pioneer Memorial Hospital, Viborg
- Platte Health Care Hospital, Platte
- Rosebud Indian Health Center, Rosebud
- SD Human Services Center, Yankton
- Sioux San Hospital, Rapid City
- Sioux Valley Vermillion Hospital, Vermillion
- St Bernard's Providence Hospital, Milbank
- St Michael's Hospital, Tyndall
- Sturgis Community Healthcare Center, Sturgis
- Eagle Butte Indian Health Center, Eagle Butte
- Sisseton Indian Health Center, Sisseton

- Sioux Falls Veterans Administration Medical Center, Sioux Falls
 - Wagner Community Memorial Hospital, Wagner
 - Winner Regional Healthcare Center, Winner
- Medical societies and nursing organizations
 - SD State Medical Association
 - SD Foundation for Medical Care
 - SD Nursing Association
 - SD Board of Nursing, Gloria Damgaard, Executive Secretary
 - SD Veterinary Medical Association, Dr. Jeff Enhrenfried, President
 - SD Board of Medical and Osteopathic Examiners, Paul Jensen, Executive Secretary
- Pharmacists
 - State Pharmacist, Bob Coolidge
 - SD Board of Pharmacy, Dennis Jones, Executive Secretary
 - SD Association of Pharmacists, Sue Schaefer, Executive Director
- Community immunizers
 - Administrator of Community Health Services, Darlene Bergeleen
- Emergency medical services
 - Director of SD Emergency Medical Services, Bob Graff
 - SD Emergency Medical Technician Association, Danny Hayes - President
- Local media officials
 - SD Newspaper Association, David Bordewyk – General Manager
 - SD Broadcaster's Association
- Mental Health Services
 - Department of Human Services, Division of Mental Health, Kim Malsam-Rysdon
 - Disaster Mental Health Institute, University of South Dakota, Jerry Jacobs

Additional groups may include:

- Volunteer organizations involved in response and recovery to various disasters
 - Red Cross
 - Salvation Army
 - Citizens Corp.
- Social service agencies
 - Department of Social Services
 - SDSU Cooperative Extension
- Law enforcement
 - National Guard
 - Highway Patrol
 - County Sheriffs
 - Department of Corrections
 - Federal Bureau of Investigation
 - Game, Fish, and Parks (Conservation officers)
 - Division of Criminal Investigations (DCI)
 - SD Police Chief's Association
 - SD Sheriff's Association
- Funeral directors
 - South Dakota Funeral Board, Carol Tellinghuisen, Executive Secretary

- South Dakota Funeral Director's Association, Steve Willard, Executive Director
- Local military installations
 - Ellsworth Air Force Base
 - Air National Guard, Sioux Falls
 - Army National Guard, Rapid City
- Large industries or employers in the area
 - SD Department of Labor
 - SD Office of Economic Development
 - SD Retailers Association, Jerry Wheeler, Executive Director
 - SD Chamber of Commerce and Industry, David Owen, President
 - SD Bankers Association, Curtis Everson, President
 - Associated General Contractors, James Keyes, Executive Vice President
 - SD Farmer's Union, Dennis Wiese, President
- State aviation and mass transit authorities
 - Department of Transportation, Division of Aeronautics, Bruce Lindholm
- Representatives of major public utilities (to ensure service during the pandemic)
 - includes all electric, natural gas, water, sewer, telephone
 - Public Utilities Chairman, Gary Hanson
- The State's chief financial officer, Auditor, and heads of any centralized procurement and/or resource support agencies
 - Bureau of Finance and Management, Jason Dilges, Commissioner
 - Bureau of Administration, Office of Procurement, Jeff Holden, Director
 - State Auditor, Rich Sattgast
- Tribal authorities
 - Aberdeen Area Indian Health Service
 - Tribal Chairman's Health Board
 - Bureau of Indian Affairs
 - Office of Tribal Government Relations
- Education administrators
 - Department of Education
 - Board of Regents
 - USD School of Medicine

A. Legal Issues (see Appendix ZZ)

The Executive Committee will review as necessary, South Dakota's statutory provisions regarding:

- Quarantine laws and how they apply in a public health emergency.
- Statutes for vaccination during an infectious disease emergency.
- Laws and procedures for closing businesses or schools and suspending public meetings during a declared state of emergency.
- Medical volunteer licensure, liability, and compensation laws for in-state, out of state, and returning retired and non-medical volunteers.
- Workman's compensation laws as they apply to health care workers and other essential workers who have taken antivirals for prophylaxis.

These legal authorities are covered in the South Dakota Codified Laws and Administrative Rules of South Dakota: SDCL 34-22-41 to 34-22-44, SDCL 34-1-17, SDCL 33-15-8, SDCL 34-22-9, and ARSD 44:20.

DRAFT

Table 1. Pandemic Stage Definitions and Actions

Phase	Explanation	Objectives	Activities*
Interpandemic Period			
Phase 1	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.		C&C = Page Svlnc = Page Vac= Page Anti= Page Comm= Page ER= Page
Phase 2	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.		C&C = Page Svlnc = Page Vac= Page Anti= Page Comm= Page ER= Page
Pandemic Alert Period			
Phase 3	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.		C&C = Page Svlnc = Page Vac= Page Anti= Page Comm= Page ER= Page
Phase 4	Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.		C&C = Page Svlnc = Page Vac= Page Anti= Page Comm= Page ER= Page
Phase 5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).		C&C = Page Svlnc = Page Vac= Page Anti= Page Comm= Page ER= Page
Pandemic period			
Phase 6	Pandemic: increased and sustained transmission in general population.		C&C = Page Svlnc = Page Vac= Page Anti= Page Comm= Page ER= Page
Postpandemic period			

V. Main components

A. Command and Control

1. Background and issues

The state plan delineates operational priorities, establishes who will be responsible for making public health and health care decisions related to the response to pandemic influenza, who will be responsible for preparing and maintaining the state plan, who will be responsible for major policy decisions, ensuring coordination among affected units, maintaining lists of key partners, and mobilizing additional resources.

Pandemic Planning requires special emphasis on certain functions which are not specifically addressed in the South Dakota Emergency Operations Plan (EOP). Therefore, sections of the EOP have been modified and incorporated into the pandemic prevention and control guidelines.

B. Surveillance

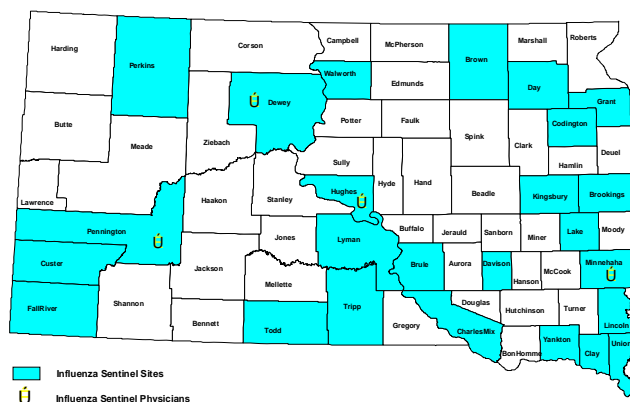
1. Background and issues

Because influenza viruses have constantly changing antigenic properties, both virologic surveillance, in which influenza viruses are isolated for antigenic and genetic analysis, and disease surveillance, in which the epidemiologic features and clinical impact of new variants are assessed, should be viewed as equally critical for pandemic preparedness.

There are four main national surveillance components:

1. *Virologic surveillance:* Each week, approximately 75 U.S. collaborating laboratories that are part of the World Health Organization's Influenza Surveillance Network and 50 National Respiratory and Enteric Virus Surveillance System laboratories report the number of clinical specimens tested for influenza and the number of positive results by virus type (A or B) and subtype (A/H1, A/H3N2 or not subtyped).
2. *Surveillance for influenza-like illness (ILI):* Approximately 1,100 sentinel health care providers/clinics located in 50 states regularly report the number of patient visits for ILI by age group and the total number of patient visits each week
3. *Surveillance for influenza and pneumonia deaths:* The Vital Statistics Offices of 122 U.S. cities report each week the percentage of total deaths that may be influenza-related.
4. State and territorial epidemiologists assesses influenza activity levels in their respective states each week and reports it as "widespread", "regional", "local", "sporadic" or "no activity."

2004-2005 Influenza Surveillance Sentinel Sites and Physicians



Six main components of South Dakota influenza surveillance:

1. Sentinel Sites – There are 31 sites across South Dakota that provides specimens to the SD Public Health Lab for testing. These sites typically submit a maximum of 6-10 clinical

specimens for viral isolation and typing per week for culture confirmation and typing. (See Picture 1, Page 21)

2. Public Health Lab – Performs respiratory virus isolation and confirmation by culture. Influenza isolates are typed and Influenza A specimens are sub-typed. Selected isolates throughout the season are submitted to the CDC for antigenic characterization.
3. Rapid antigen reporting – The SD reportable disease list requires weekly reports of number of rapid antigen influenza positive tests and total number tested. Any facility conducting influenza rapid antigen testing must abide under this list as specified in SDCL 34-22-12 and ARSD 44:20.
4. CDC Sentinel Physicians – These sites also submit clinical specimens for viral isolation and typing. There are currently five participating physicians and physician assistants geographically dispersed across the state. (2-Sioux Falls, Pierre, Rapid City, Isabel) This amounts to 1 site per 150,000 population, which exceeds the national recommendation of 1 site per 250,000 population.
5. Laboratory confirmed cases of influenza are also reportable in South Dakota. Laboratories performing this testing report their results in aggregate.
6. Pediatric influenza-associated deaths became a reportable event in December 2004.

In addition, a variety of other sources such as nursing homes and schools will report influenza outbreaks or other influenza-associated events during the year.

Key questions South Dakota's surveillance section will need to answer during a pandemic fall into two main categories: 1) detection of the novel strain, and 2) disease monitoring, and include the following:

- Has the novel virus arrived?
- Where is disease activity increasing or decreasing?
- How many persons are estimated to be infected, hospitalized, and dead?
- Is the pandemic causing more and/or more serious disease than an annual influenza epidemic?
- Which population groups are most severely affected?

Enhancement of the current surveillance system is necessary to assure that the high demand for timely information that can be anticipated in a pandemic can be met.

C. Vaccine Delivery

1. Background and issues

Inactivated influenza vaccine has long been considered the cornerstone of influenza prevention and control. As such, vaccine will serve as an element of the preventive strategies during the next pandemic. Annual delivery of influenza vaccine has become increasingly more accepted and wide-spread. Specialists detect and monitor new variants of influenza virus throughout the year for potential vaccine strains, which are then routinely chosen in early spring. The vaccine is administered beginning in September, and has been targeted primarily at high-risk individuals as defined by the Advisory Committee on Immunization Practices (ACIP).

The success of the pandemic influenza vaccination program will be determined in large part by the strength of vaccination programs during the inter-pandemic period for three main reasons: (1)

increased acceptance of and public confidence in the vaccine; (2) stimulation of vaccine production by manufacturers to meet demand; and (3) strengthening of distribution channels.

South Dakota has a very strong tradition of flu vaccination. According to the CDC, South Dakota lead the nation in 2002 for the rate of adults aged 50-64 receiving the flu vaccine, 49%, and had the second highest for those over 65 years of age, 74%. South Dakotans have been encouraged to build on this tradition and receive an influenza vaccination each year.

Unlike annual production of influenza vaccine a pandemic strain could be detected at any time. Some of the contrasts between delivery of pandemic vaccine and the annual influenza vaccine include the following:

- Vaccination Assumptions
 - It will take 6 to 8 months after the pandemic virus is identified before the vaccine is available for distribution.
 - The target population will be modified according to the availability of vaccine. See Appendix 1: Priority Groups, Page 34.
 - Educating the public and the health care community about the rationale for priority groups will be an important aspect of public education.
 - The need to ration vaccine will require adequate security measures.
 - Once a pandemic imminent stage has been declared the SD-DOH core team will prepare for vaccine delivery and administration.
 - We expect South Dakota's share of the national vaccine stock distribution to be about 0.3% of the total stock.
 - Two doses (administered 4 weeks apart) will be required to develop immunity to the novel virus. This is due to the poor immunologic response of serologically negative individuals following initial vaccination which would occur with a novel influenza virus which has new hemagglutinin and/or neuraminidase antigens.
 - A final decision regarding the degree of federal vaccine purchase has not yet been made. South Dakota's vaccine delivery and administration plan will address the different possible scenarios including complete federal purchase and distribution to states, partial federal purchase with distribution to states, and minimal federal purchase (similar to the annual influenza vaccination program). See Appendix 2: Vaccine Delivery, Page 35.
 - Once vaccine is available, it will take several months to produce an adequate supply of vaccine for the US population.
 - CDC will develop a standard vaccine information statement (VIS) that details the risks and benefits of the disease and the vaccine.
 - Monitoring of vaccine adverse events will be necessary during a vaccination campaign against pandemic influenza. Any vaccine adverse event reports will be made directly to the SD-DOH and investigated. These adverse event reports will also be submitted to the national vaccine adverse events reporting system (VAERS). The state adverse events coordinator will be involved in vaccination planning.

During the inter-pandemic period efforts to increase pneumococcal polysaccharide vaccination which can reduce the incidence of invasive pneumococcal disease secondary to influenza should be emphasized. Because large-scale pneumococcal vaccination may not be feasible once a pandemic alert has occurred, the inter-pandemic period is the ideal time to deliver this preventive measure.

D. Antiviral Medication

1. Background and issues

Antiviral drugs for influenza are an important adjunct to influenza vaccine for the control and prevention of influenza. Because vaccine will likely not be available when the novel virus first affects communities, antivirals may play an important role in control and prevention, especially during the period before vaccine is available. Existing production capacity for influenza antiviral drugs is less than would be needed to provide prophylaxis or treatment for the entire population and the current supply of antivirals in the Strategic National Stockpile (SNS) is limited.

Four prescription medications with antiviral activity against influenza viruses are commercially available in the United States (amantadine, rimantadine, oseltamivir, and zanamivir). The four drugs are classified into two categories, the adamantane derivatives and the neuraminidase inhibitors, on the basis of their chemical properties and activities against influenza.

Prophylaxis

Adamantanes (amantadine and rimantadine) are best suited for prophylaxis (preventive care) because of the high potential for viral resistance to emerge during treatment, the potential supply, and their cost. The central nervous system side effects, although substantially less with rimantidine than amantadine, may preclude the use of these drugs for certain target groups. The neuraminidase inhibitor oseltamivir is an alternative option.

Identification of influenza within a community (based on either isolation of the pandemic strain or an increase in ILI) should be the trigger for initiating prophylaxis and should be continued until exposure has ceased. As with decisions about vaccine use, recommendations for priority groups for antivirals will be established at the national level, and South Dakota will need to review these recommendations and revise, as needed, based on local factors.

Therapy

Neuraminidase inhibitors (oseltamivir and zanamivir) should be used for therapy because of the potential for viral resistance while adamantanes are used for therapy. Therapy is effective at decreasing severe complications and may reducing hospitalizations but only if offered within two days of developing symptoms. Distribution of drugs for therapy is a challenge given the limited amount available, the large number of points of care, and the need to initiate the course of treatment within 48 hours of onset of symptoms.

Prioritizing within priority groups may be necessary given the limited supply. For antivirals purchased with public funds, the state will be responsible for local distribution in collaboration with the private sector. If there is no state or federal purchase, the state's role will largely be one of public and provider education around appropriate use of antivirals. As with vaccine, it will be critical for clear and coordinated communication and education of the private sector and general public regarding the rationale for priority groups.

E. Communications

1. Background and issues

Through CDC's Bioterrorism Preparedness and Response cooperative agreement, South Dakota has been working to implement a plan for connectivity of key stakeholders involved in public

health detection and response, including hospital emergency departments, state public health officials, law enforcement, and other key participants. When implementation is complete, this communication system will be used for all types of public health emergency, including pandemic influenza.

CDC will make a number of materials available before and during influenza pandemic, including:

- Basic communication materials (such as FAQs and fact sheets) on influenza, influenza vaccine, antiviral agents, and other relevant topics in various languages.
- General preventive measures such as “do's and don'ts” for the general public.
- Information and guidelines for health care providers:
 - Training modules (Web-based, printed, and video)
 - Presentations, slide sets, videos, documentaries
 - Symposia on surveillance, treatment, and prophylaxis

The department will need to develop focused messages for healthcare and the general public in anticipation of vaccine and antiviral shortage. Information about vaccine and antiviral availability, rationale for priority groups, influenza prevention, and preparation measures make up the most critical information needs. Other important topics include: basic information about influenza (including symptoms and transmission), frequently updated information about the course of the pandemic (contagiousness, geographic spread, case counts), information about which symptoms should prompt seeking medical attention and which should be managed at home, information about school and business closures and suspended public meetings, and information about travel restrictions and quarantine laws.

Credible spokespersons such as the Secretary of Health and State Epidemiologist have been identified to represent the South Dakota Department of Health. Key stakeholders should also be identified and selected for their credibility among and ability to reach their constituency.

Timely sharing of new information with all communication partners will be important both in terms of actively engaging them and in terms of ensuring that consistent messages are sent by all agencies/partners involved.

Media relations will play an important role in information dissemination, particularly for the general public. The department's existing media relations infrastructure is already used to respond to crisis oriented situations, for example the 2004 influenza vaccine shortage. This system includes detailed policies and procedures, along with established communications mechanisms such as broadcast fax, email news release distribution, listservs, and informational web sites for media and the general public, and is continually reviewed and revised. The state's Emergency Operations Plan (EOP) also provides direction regarding communications in the event of a pandemic. Ultimate authority for activating the EOP rests with the Governor's office, which also maintains primary responsibility for release of public information items. The Governor's press secretary and/or other designated staff serve as liaison with state agencies on the development and release of all news items, monitor materials to assure accuracy and timeliness, and coordinate arrangements for news conferences and meeting with reporters.

F. Emergency Response

1. Background and issues

All state governments are required to have an emergency management plan which addresses all hazards. Pandemic influenza, however, poses unique challenges not be addressed in these plans. For example, in most emergency situations notification and response is initiated at the local level, followed by state then federal notification and response. In the event of pandemic influenza, notification and response is most likely to be initiated at the national or international level, then state and finally local. Because of these unique challenges, emergency management plans should incorporate a pandemic influenza plan as an appendix to the existing plan. Some issues which should be addressed are outlined below.

Pandemic influenza differs from most bioterrorism threats in the magnitude and duration of its impact including the likelihood of second and later waves of disease. One of the greatest concerns is the limited surge capacity that currently exists in the health care system. Most important is the lack of readily available additional staff due in part to the nursing and other healthcare professional shortage. Identification of sources of back-up personnel is of paramount importance, given the increased demands on the system posed by the pandemic with concurrent reduction in the work force due to illness, absenteeism, and exhaustion. Additional emphasis on augmenting volunteer lists may be warranted. In addition to human resources, material resources will be strained as well, and a process for allocation of scarce resources should be defined.

Regional Hospital Bioterrorism planning will identify overflow locations which may be used for inpatient or outpatient care. Establishing health care facilities in temporary medical care sites is a significant task that requires that numerous issues be addressed including staffing, equipment, infection control, standards of care, and legal issues. Pandemic planners will need to determine specific needs that such buildings and facilities may have with respect to treatment of influenza (such as in relation to ventilators and instituting proper infection control). Advance planning protocols to triage to overflow locations will ensure a smoother process. In addition, home health care may play an important role, given the potentially high number of ill persons. In the event of a massive pandemic, the quality of material care (such as nursing, ventilators, nutrition, and hydration) will deteriorate. Advance consideration to approaches such as using family members to provide care should be considered. Both the magnitude and duration of a pandemic can cause severe stress within the population indicating a need to plan for its treatment or alleviation.

An influenza pandemic may pose significant threats to the human infrastructure responsible for critical community services due to widespread absenteeism and exhaustion in the workforce. Examples of such services (and personnel) in the non-health sector might include highly specialized workers in the public safety, utility, transportation and food service industries, and will likely vary from jurisdiction to jurisdiction. State and local officials should carefully consider which services (and key personnel within relevant firms or organizations) are "essential" (that is, which services, if interrupted, and which workers, if absent, would pose a serious threat to public safety or would significantly interfere with the ongoing response to the pandemic).

Phase 1 and 2 *Inter-pandemic phase*

Command and Control: Phase 1 and 2 - INTERPANDEMIC PERIOD

- The Governor of South Dakota may designate the Secretary of Health as the leader and decision maker of the state's public health and health care-related response to pandemic influenza.
- The Secretary of Health may designate the State Epidemiologist and HMS Division Director as the leaders and decision makers of the state's public health and health care-related response to pandemic influenza. The DOH Core Team will provide advice and expertise.
- The South Dakota Public Health Laboratory (SDPHL) will provide testing, technical support, and laboratory coordination for those with culturing capabilities to the SD-DOH pandemic response.
- The Executive Committee will address each operational priority annually (See sections V.B. [p. x] - V.F. [p. x]) and ensure that the state pandemic plan remains current.
 - Any identified gaps in state infrastructure, resources, laws and statutes which may interfere with an effective response, will be brought before key government officials, legislators, and various stakeholders to resolve them in advance of a pandemic.
- Each DOH Section has the following personnel and other resources to assist in the pandemic response:
 - Disease Prevention: epidemiologists, registered nurses and disease investigators
 - Public Health Laboratory: microbiologists, virologists, laboratory technicians, and other laboratory staff, together with laboratory testing equipment and facilities for a novel influenza virus
 - Community Health Services: registered nurses, licensed practical nurses, dieticians
 - Licensure and Certification: registered nurses and engineers
 - Health Protection: sanitarians
 - Public Health Preparedness and Response: response coordinators and risk communications staff
- Resource lists maintained by divisions are as follows:
 - Disease Prevention: physicians by medical specialties, infection control practitioners, and community health service personnel.
 - Public Health Laboratory: clinical and environmental laboratories, laboratory directors/managers, laboratory capacity, and key laboratory staff.
 - Licensure and Certification: Licensed and certified health care facilities and services, Federally Qualified Health Clinics (FQHC), and Rural Health Clinics (RHC).
 - DOH Administration: morticians, crematories, and medical examiners/coroners.
 - Public Health Preparedness and Response: Physician list, HAN and Virtual Alert personnel lists.
- South Dakota's planning activities with bordering jurisdictions, including tribes, counties, neighboring states and unique populations (such as new immigrant populations, and religious enclaves) will be coordinated in collaboration with federal authorities.

Surveillance: Phase 1 and 2 – *INTERPANDEMIC PERIOD*

The essential requirements include:

- The South Dakota Public Health Laboratory (SDPHL) will isolate and subtype influenza viruses during the influenza season, and maintain the capability of isolating and subtyping influenza year-round.
- The SDPHL will continue to perform viral culture despite increasing usage of rapid influenza diagnostic tests and PCR testing. This offers definitive confirmation of influenza circulation within South Dakota.
- The SDPHL and other National Respiratory and Enteric Virus Surveillance System (NREVSS) participating laboratories (currently USD Clinical Virology Labs in Sioux Falls and Rapid City) will transmit their influenza data (positives and negatives) electronically to CDC via the Public Health Laboratory Information System.
- The influenza surveillance coordinator will work to recruit additional providers (1/250,000 persons or a minimum of 10 providers) who regularly report their weekly data to CDC via the Internet year-round. The providers will be encouraged to submit specimens collected from patients with ILI throughout the season to the SDPHL for viral culture at no charge.
- The influenza surveillance coordinator will:
 - Monitor sentinel provider data weekly for completeness and/or errors
 - Provide feedback and maintains contact with sentinel providers weekly to encourage reporting and follow-up on unusual reports
 - Contribute to state pandemic planning issues and activities
 - Establish and maintain strong working relationships with the SDPHL.
 - Encourage sentinel providers to submit specimens for viral culture to the SDPHL
 - Create a weekly assessment of overall influenza activity level in the state and report that data to CDC by noon each Tuesday.
 - Develop a means to count numbers of influenza-related deaths in South Dakota using the electronic death registry.
 - Develop a means to monitor hospitalized cases.
 - Explore interest of partners within South Dakota (such as academic institutions) to examine specific issues during a pandemic (such as document outbreaks, determine age-specific attack rates, morbidity and mortality, describe unusual clinical syndromes, monitor ability of hospitals and outpatient clinics to cope with increased patient load).

Vaccine delivery: Phase 1 and 2 – *INTERPANDEMIC PERIOD*

- South Dakota Department of Health will develop and distribute a written packet of materials to all health care providers. The packet will include a summary of the most current influenza vaccine recommendations issued by the ACIP.
- South Dakota Department of Health will distribute the most current CDC developed vaccine information statements (VIS) in English and other languages.
- The South Dakota Department of Health continues to participate in the South Dakota Adult Immunization Coalition. The group will continue to encourage the pneumococcal vaccination which will assist in preventing secondary bacterial infections.
- The SD Immunization program will work to enhance influenza vaccination coverage levels in traditional high-risk groups, particularly subgroups in which coverage levels are particularly low (e.g. minorities and persons younger than 65 years of age with chronic underlying medical conditions). Increasing routine, annual vaccination coverage levels in these groups will further

reduce the annual toll of influenza and will facilitate access to these populations when the pandemic occurs.

- The immunization program will enhance pneumococcal vaccination coverage levels in traditional high-risk groups to reduce the incidence and severity of secondary bacterial pneumonia.
- Modifications to the national recommendations for vaccine priority groups will be evaluated during the Executive committee's annual review of the pandemic plan. State-specific alterations will depend on local circumstances (i.e., specific groups who absence due to influenza could affect public safety, security, or result in disruption of essential community services)
- OPHPR will be asked to periodically determine the size of SD's priority groups by conducting a statewide assessment
- Appendix 2: Vaccine Delivery, Page 35 provides optional plans for providing influenza vaccine to priority groups in the event of severe or moderate vaccine shortages. Prioritization of the priority groups will be done by the SD-DOH core team with input from the Executive Committee.
- Appendix 2: Vaccine Delivery, Page 35 provides optional plans for mass vaccination of the general public once sufficient amounts of vaccine are available, including number of vaccine administration personnel needed.
- DOH legal counsel will review and close gaps in the legal authorities to allow for implementation of the proposed distribution plan.
- Appendix 2: Vaccine Delivery, Page 35 covers provisions for use of investigational new drugs (IND) such as inventory control, record-keeping, and signed consent forms.
- The SD-DOH will coordinate the proposed vaccine distribution plan with bordering jurisdictions, including states and unique populations (such as Native American tribes and certain religious enclaves) in collaboration with federal authorities.
- The state adverse events coordinator will be involved in vaccination planning and the monitoring and investigation of adverse events. Vaccine adverse events are a reportable condition in South Dakota and provider reports will be utilized to identify lot number, date of vaccination, and other pertinent information.
- Maintain the South Dakota Immunization Information System (SDIIS) access with the public health sites identified in Appendix 2: Vaccine Delivery, Page 35 (Proposed Influenza Vaccination Clinic Sites) to allow provider level entry of vaccine supply, tracking, and distribution. South Dakota Immunization Information System (SDIIS) may be used to track administration of two doses of vaccine (if recommended).
- Review, exercise, and modify vaccine distribution plans as needed or on a periodic basis.

Antiviral medication: Phase 1 and 2: *INTERPANDEMIC PERIOD*

- SD-DOH will inventory pharmaceutical distributors to determine which facilities in South Dakota currently stock antiviral drugs and what the quantity and use timeframe is.
- National recommendations for priority groups will be obtained and considered by the SD-DOH core team in addition to the South Dakota priority groups identified in Appendix 1: Priority Groups, Page 34. If no priority groups have been identified at the national level, the state may utilize those identified by the state. The priority groups can be modified to account for the epidemiology of the novel influenza virus.

- OPHPR and Office of Data, Statistics, and Vital Records will conduct an assessment to quantify the number of individuals in the high priority populations for prophylaxis and therapy.
- Drug distribution plans outlined in Appendix 3: Antiviral Medication Distribution, Page 57 can be modified for the different possible scenarios.
- Through current communication means (HAN, press releases, blast fax, etc.) healthcare providers and the general public will be educated about antiviral agents (includes prescribing information for healthcare providers).
- Coordinate with neighboring tribes and bordering jurisdictions.
- DOH legal counsel will be asked to review workman's compensation laws as they apply to health care workers and other essential workers who have taken antivirals for prophylaxis.
- Utilizing the vaccine management system as a model, develop an antivirals data management system to track supplies, distribution, and use.

Communications: Phase 1 and 2 – *INTER-PANDEMIC PERIOD*

- Identify a spokesperson (and backup) to the media and to the public. The SD-DOH has identified the Secretary of Health (or Health and Medical Services Division Director), State Epidemiologist, and Public Information Officer as the three primary points of contact.
- The Public Information Officer will review current pre-scripted materials and messages and develop or modify as appropriate.
- The Virtual Alert system will provide one of the major communication links between SD-DOH and healthcare professionals in the state. The second communications link is the Health Alert Network. Internet websites, other web-based communication systems, blast fax, digital radio, and phone will be used to communicate with healthcare professionals and SD-DOH staff.
- Review CDC materials and adapt or revise as needed.

Emergency Response: Phase 1 and 2 – *INTERPANDEMIC PERIOD*

- Assess the need, possible locations, and legal implications of temporary medical care sites as overflow facilities.
- Assess and develop plans for the coverage of mental health services for South Dakota.
- Using CDC guidelines, SD-DOH will adopt or modify as needed triage and treatment guidelines for influenza patients in the outpatient, inpatient, and temporary medical care sites.
- Annual review and periodic exercise of all emergency response plans to ensure that specific challenges posed by an influenza pandemic are addressed and updated.
- Periodically review pertinent legal authorities including quarantine laws and how they apply in a public health emergency, laws and procedures for closing businesses or schools and suspending public meetings during a declared state of emergency, and medical volunteer licensure, liability, and compensation laws for in-state, out of state, and returning retired and non-medical volunteers.
- SD-DOH will update and/or inventory medical supplies, facilities, and services. The following services/items will be inventoried:

- Medical personnel, including but not limited to: licensed physicians, physician assistants, certified nurse practitioners, registered nurses, licensed practical nurses, medical assistants, and other persons trained for an emergency.
 - Pharmacies and pharmacists
 - Mortuary/funeral services
 - Social services/mental health services/faith services
 - Hospital and long-term care beds
 - ICU capacity
 - Ventilators
 - Temporary medical care sites
 - Mobile laboratory services
 - Courier services
 - Personal protective equipment (e.g., masks, gloves, gowns, PAPRs, fit testing)
 - Medical supplies (e.g., syringes, dressings, other durable medical supplies)
 - Specimen collection and transport materials
 - Identify any other issues specific to pandemic influenza.
-

Phase 3 and 4: *Pandemic Alert*

Command and Control: Phase 3 and 4 – PANDEMIC ALERT

- The Secretary of Health will convene the SD-DOH core team to coordinate and implement the SD-DOH pandemic response activities. The core team may include staff from other affected divisions, as appropriate.
- The Administrator of the Office of Disease Prevention will track assigned responsibilities, perform follow-up, and provide administrative functionality.
- The SD-DOH Core Team will include:
 - Secretary of Health
 - State Epidemiologist
 - Health and Medical Services Division Director
 - Office of Disease Prevention Administrator
 - SD Public Health Lab Director
 - Disease Surveillance Coordinator
 - Disease Surveillance Manager
 - Influenza Surveillance Coordinator
 - Community Health Services Administrator
 - Immunization Program Coordinator
 - Office of Public Health Preparedness and Response Administrator
 - Public Information Officer
 - State Veterinarian, as appropriate.
- The core team and appropriate partners and stakeholders will review major elements of the plan, modify it as needed, and evaluate level of preparedness.
- SD-DOH will work to coordinate with federal agencies, neighboring tribes, and bordering states as needed.

- Pandemic response expenses will be documented by the Division of Administration's Financial Management Office.

Surveillance: Phase 3 and 4 – *PANDEMIC ALERT*

The CDC continuously monitors surveillance data reported nationally and is in frequent communication with public health colleagues around the world so that novel viruses are detected and investigated as quickly as possible. Activities regarding this level of preparedness include:

- Increased case detection among persons who recently traveled to the outbreak area and present with clinical illness possibly caused by influenza including pneumonia, acute respiratory distress syndrome, or other severe respiratory illness. Those cases will have specimens collected to diagnose via culture influenza infection.
 - Includes notification of physicians, laboratory directors, infection control practitioners, emergency rooms, and urgent care centers.
- Three labs in the state perform viral isolation (SDPHL, 2-USD Clinical Virology Labs) and they should follow CDC recommendations on testing. (ex. 2004 H5N1 influenza strain seen in Asia is not to undergo viral culture without using biosafety level 3+ facilities because of the potential risk of spread) Influenza infection can be diagnosed within the state using antigen detection, immunofluorescence, or PCR. Guidance will be provided by CDC appropriate to each specific novel virus alert.
- Influenza surveillance coordinator and State Epidemiologist will ensure that all inter-pandemic influenza surveillance activities are underway regardless of the time of year and that all participating laboratories and sentinel providers are reporting data to CDC in a timely manner designated by CDC (e.g., weekly).
- SDPHL will subtype influenza A viruses identified in clinical specimens and reporting any influenza A viruses that cannot be subtyped to CDC immediately. CDC will provide instructions on the safe handling of a potential novel influenza virus.
- SDPHL will obtain reagents from CDC (when they become available) to detect and identify the novel strain.
- The influenza surveillance coordinator will actively recruit and enroll additional sentinel providers, if necessary, to reach the minimum of one regularly reporting provider for every 250,000 persons (minimum of 10 in states with smaller populations like South Dakota).
- SD-DOH core team will monitor and institute recommendations from CDC for any additional surveillance activities that should be undertaken given the specific circumstances.
- The State Epidemiologist and influenza surveillance coordinator will review current influenza surveillance measures and plans for further enhancing influenza surveillance if efficient person-to-person transmission of the novel virus is confirmed.
- Communication with healthcare providers and healthcare facilities will occur through the Health Alert Network administered by the Office of Public Health Preparedness and Response.
- The SD Public Health Laboratory Director will coordinate with influenza culture capable laboratories: USD Clinical Virology Labs in Sioux Falls and Rapid City.

Vaccine delivery: Phase 3 and 4 – *PANDEMIC ALERT*

- The SD-DOH core team and appropriate partners and stakeholders will review major elements of the vaccine distribution plan (See Appendix 2: Vaccine Delivery, Page 35) and modify the plan as needed to account for any updates on recommended target groups, projected vaccine supply, and human resources availability.
- The source of and any supplies needed for a mass vaccination clinic will be identified.

Antiviral medication: Phase 3 and 4 – PANDEMIC ALERT

- SD-DOH core team will review major elements of the antivirals plan and modify to meet expected needs (recommended target groups, usage instructions, and projected supply).
- SD-DOH will be in continued communication with the healthcare community regarding the antivirals plan including availability, use guidelines, and distribution.
- Facilities identified as handling antivirals will be approached by the SD-DOH regarding possible redistribution.

Communications: Phase 3 and 4 – PANDEMIC ALERT

- Review CDC materials and adapt or revise as needed.
- Through current means of communications (e.g., blast fax, HAN, and press releases), disseminate information to public and partners on ongoing basis.
- Coordinate with neighboring tribes and bordering jurisdictions.

Emergency Response: Phase 3 and 4 – PANDEMIC ALERT

- Members of the SD-DOH core team will be notified as to location and discuss potential threat.
 - SD-DOH will notify all healthcare professionals of a novel virus detection if within the United States and ask for increased suspicion of influenza-like illness in those ill with recent travel to the affected area.
-

Phase 5: *Pandemic Alert*

Command and Control: Phase 5 – PANDEMIC ALERT

- Consideration will be given to partially activating the State Emergency Operations Center (SEOC).
- The SD-DOH Core Team will convene to assess the extent of the pandemic to South Dakota and discuss the pandemic response including influenza vaccine and antiviral medication needs.
- If the core team determines the pandemic response requires more assistance than the assigned staff, unaffected divisions will be asked to provide assistance. Other division directors will determine what division priority activities must be continued and will re-assign staff to assist in the response effort. The core team will be responsible for directing the work of re-assigned employees.
- Enhanced surveillance and communications plan will be activated by appropriate personnel (i.e., influenza surveillance coordinator and State Epidemiologist, State Epidemiologist and OPHPR staff)

- Appendix 2: Vaccine Delivery, Page 35 and Appendix 3: Antiviral Medication Use, Page 57 will identify how the needs assessment and distribution activities will be undertaken when use/release is appropriate.
- The SD-DOH core team will activate the enhanced plans for operational priorities (See sections V.B. [p16] - V.F. [p31])
- Additional resources and other needs will be brought to the SD-DOH core team as necessary.
- Pandemic response expenses will be documented.
- Assessment of need for Information Technology development and personnel will be done.
- Evaluation of need for reapportionment of state funds for outbreak management will be initiated.
- The incident command system will be utilized throughout the pre-pandemic, pandemic, and post-pandemic periods.

Surveillance: Phase 5—*PANDEMIC ALERT*

If efficient person-to-person transmission of a novel influenza virus is confirmed anywhere in the world, the following additional surveillance enhancements should be made:

- The SD-DOH core team will assess the need to screen travelers arriving in SD from affected countries.
- ODP will promptly investigate the epidemiology of early cases either originating in SD or that are imported. This will be done by using tools provided by the CDC including case forms and investigation protocol.
- At hospitals and emergency departments, increase laboratory diagnosis of influenza, including use of rapid antigen detection tests for persons with compatible clinical syndromes, particularly among those who may have had recent exposure at the site of an outbreak. Laboratories will institute plans for testing substantially more specimens than usual. CDC will provide guidelines to assist with triage of specimens for testing and for choosing which isolates to send to CDC.
- Secretary of Health will make all influenza deaths a mandatory reportable event by emergency order of the SD State Health Officer.
- Sentinel sites will be expanded to approximately 60 labs, clinics, and hospitals across the state to meet the heightened surveillance needs.
- Influenza sentinel physicians will be expanded to 20 sites.
- SD-DOH will actively encourage voluntary influenza-like illness (ILI) outbreaks in long-term care facilities (LTC) and educational institutions (schools and colleges).
- NREVSS participating laboratories should begin reporting test results daily to CDC.
- The completeness and timeliness of reports from all participating laboratories and sentinel providers will be monitored by the influenza surveillance coordinator and non-reporters contacted to improve their performance as necessary.
- Communication with healthcare providers and healthcare facilities will occur through the Health Alert Network administered by the Office of Public Health Preparedness and Response.
- In the absence of vaccine, primary response strategies include interventions to slow the spread of infection and quality medical care. The SD-DOH will utilize and modify as necessary its prevention message “Stop It, Don’t Spread It”.

- The influenza surveillance coordinator should issue daily influenza reports.

Vaccine delivery: Phase 5: *PANDEMIC ALERT*

- SD-DOH core team will ensure that human resources and logistics are in place to begin vaccination, taking into account need for additional staff due to illness.
- Coordination of planned activities with neighboring tribes and bordering jurisdictions will be enhanced.
- SD-DOH will conduct training for relevant agencies and partner groups regarding vaccine delivery protocols and procedures.
- Communication and distribution of influenza-related materials will be provided to the medical community through the Health Alert Network (SD-HAN) and media community through periodic press releases.
- Ordering and stockpiling of vaccine supplies (e.g., syringes, alcohol wipes, emergency anaphylaxis kits, etc.) and other supplies (VISs, consent forms, etc.) will begin.
- All health care providers in SD and the media will be notified of the need to vaccinate persons age >65 and others recommended by ACIP with pneumococcal vaccine as a method of decreasing morbidity and mortality associated with pandemic influenza complications (e.g., secondary bacterial pneumonia)
- The designated vaccination sites will be readied for activation.

Antiviral medication: Phase 5—*PANDEMIC ALERT*

- Redistribution of identified antiviral supplies will be considered by the SD-DOH core team.
- SD-DOH core team will ensure that the human resources and logistics are in place to begin drug distribution and administration.
- Coordinate with neighboring tribes and bordering jurisdictions.
- SD-DOH will be asked to track adverse reactions to the antiviral medications.
- An assessment of the antiviral need within SD communities will be conducted by OPHPR.

Communications: Phase 5 – *PANDEMIC ALERT*

- Consideration will be given to partially activating the State Emergency Operations Center (SEOC).
- The State Epidemiologist and SD-DOH core team will identify and notify appropriate SD-DOH staff and field offices.
- SD-DOH core team and partner and key stakeholders will review major elements of the plan.
- Continue to work with the public, health partners, and media to disseminate current information.
- Public Information Officer will monitor media coverage and address misinformation.
- Coordinate with neighboring tribes and bordering jurisdictions.
- SD-DOH will establish a website and discuss setting up a hotline to respond to pandemic inquiries (for instance, regarding the location of immunization clinics), and assure that surge capacity is in place to deal with high usage.
- SD-DOH core team and OEM will identify and notify appropriate state and local officials to coordinate pandemic response.

- SD-DOH core team and OEM will identify and notify other federal and state agencies and other appropriate organizations (volunteer and private sector groups) as necessary.

Emergency Response: Phase 5 – *PANDEMIC ALERT*

- SD-DOH will notify all healthcare professionals of confirmation of human to human transmission and ask for heightened awareness and increased suspicion of influenza-like illness in those ill with recent travel to the affected area.
 - SD-DOH core team will notify other entities such as CHS and OEM on an as needed basis.
 - SD-DOH core team will convene to review key portions of the pandemic plan and formulate scenarios and strategies to manage an outbreak in South Dakota.
 - Services/items cited to be inventoried and updated during the pre-pandemic period will be re-inventoried and assessed for readiness.
 - Communication and network systems will be tested in preparation for expanded use during a pandemic situation.
 - Assess the mental health services that may be needed during the pandemic.
-

Phase 6: *Pandemic period*

Command and Control: Phase 6 – *PANDEMIC PERIOD*

- In collaboration with OEM, SEOC may be fully activated.
- The SD-DOH Core Team will convene to assess the extent of the pandemic to South Dakota and discuss the pandemic response including influenza vaccine and antiviral medication needs.
- The core team will monitor staffing needs and reassign staff or request additional assistance as necessary.
- Material resource needs should be identified and item requests submitted to the Office of Emergency Management (OEM).
- SD-DOH will coordinate pandemic response activities with neighboring jurisdictions as needed.
- The core team will be responsible for regular communications with response partners and stakeholders regarding the status of the pandemic and SD-DOH's response.
- The core team will be responsible for regular updates to the administration.
- All other divisions will assume a supportive role, working with the affected division in ways appropriate to their program authority and responsibilities.
- Pandemic response expenses will be documented.

Surveillance: Phase 6 – *PANDEMIC PERIOD*

- Participate in CDC studies to monitor vaccine effectiveness and antiviral resistance.
- South Dakota surveillance of pandemic influenza will rely primarily on web-based reporting and sentinel physician sites. SD-DOH will request that sentinel providers obtain and submit a specimen for viral culture and an Enhanced Influenza-like Illness Report Card and Laboratory Submission form for a proportion of patients meeting the ILI criteria. Health care facilities may have to increase their staffing to comply with reporting. The

Enhanced Influenza-like Illness Report and Laboratory Submission form will collect the following information:

- Demographics (first and last name, address, phone, sex, race, occupation)
 - Date of Birth
 - Symptoms
 - Symptom onset date
 - Date of death, if applicable
 - Specimen collected (source, type)
 - Specimen collect date
 - Rapid Antigen test result
 - Vaccination history
 - Severity of illness
- Communication with healthcare providers and healthcare facilities will occur through the Health Alert Network administered by the Office of Public Health Preparedness and Response.
 - PPHR and SDPHL Lab Director will coordinate additional specimen transport as necessary.
 - Review death certificates statewide for influenza-related pneumonia and influenza deaths using the South Dakota Electronic Death Registry.
 - Validate influenza illness reporting systems.
 - Between pandemic waves, conduct an assessment of the key surveillance components and make recommendations for improvement.

Vaccine delivery: Phase 6 – *PANDEMIC PERIOD*

- Fully activate the vaccination program (See Appendix 2: Vaccine Delivery, Page 35), including distribution, administration, monitoring of vaccine distribution and administration, and tracking of dose, appropriate storage and handling, and safety monitoring.
- Coordinate activities with neighboring tribes and bordering jurisdictions.
- Communication and distribution of influenza-related materials will be provided to the medical community through the Health Alert Network (SD-HAN) and media community through periodic press releases.

Antiviral medication: Phase 6—*PANDEMIC PERIOD*

- SD-DOH core team with input from the Secretary of Health will fully activate the antiviral drug distribution plan.
- Continue coordination with neighboring tribes and bordering jurisdictions.
- Implement data management system for antiviral distribution, use, and supply.

Communications: Phases 6 – *PANDEMIC PERIOD*

- OEM may be asked to fully activate the SEOC.
- Review and modify messages and materials as needed.
- Public Information Officer will continue to monitor media coverage and address misinformation.
- Information regarding the status of the pandemic and other key information will be periodically released to healthcare providers, the media, and general public.

- Staff will be made available to activate the information hotline.
- Coordinate with neighboring tribes and bordering jurisdictions.

The basis for these communication avenues can be found in Emergency Support Function 02 – Communications of the SD Emergency Operations Plan.

Emergency Response: Phases 6 – *PANDEMIC PERIOD*

- SD-DOH core team will consider restricting DOH activities to essential services. May include reassignment of staff to pandemic response activities with appropriate just-in-time training.
- Notify and provide routine updates to all healthcare professionals regarding the onset and progression of the influenza pandemic. Consideration will be given to activating the regional emergency medical response plans based on overall capacity to handle the additional medical need of the communities.
- With OEM consider fully activating the State Emergency Operations Center (SEOC)
- Consider stockpiling supplies as needed from the inventory assessment.
- Assign, stock, and staff temporary medical care sites and mobile laboratory as needed.
- Assess need for and coordination of mental health services.

Post pandemic period

- The SD-DOH Core Team will convene to discuss and plan for the post-pandemic response.
- The core team will be responsible for regular communication with administration regarding the post-pandemic status.

APPENDIX 1: Priority Groups

Priority groups will need to be reassessed and possibly altered to coordinate with CDC priority groups and as epidemiologic data on the specific pandemic virus becomes available to ensure consistency with the needs of the State of South Dakota. Priority group assignments will meet the overall goals of the response plan, which include reduction of mortality and morbidity, limitation of social disruption, maintenance of health care systems, maintaining integrity of social infrastructure, and limiting economic losses.

Group One

Personnel involved in maintaining continuity of government, healthcare response, and vaccine/antiviral distribution:

- Emergency response decision makers: governor, attorney general
- Direct patient care staff including:
 - Acute care hospital workers
 - Long term care facility workers
 - Home health care workers
- Community health nurses and other essential public health employees
- Pharmacists
- Laboratory workers
- Emergency Medical Personnel (actively affiliated with a service)

Group Two

Includes personnel needed to carry out the pandemic influenza response plan (eligibility based on work/duties rather than position label):

- County Emergency Managers
- Police
- Fire-fighters
- National Guard
- Utility workers (water, gas, electricity and essential communications systems)
- Mortuary personnel
- People working with institutionalized persons (e.g., correctional, mental health facilities)
- Persons who are employed in public transportation and the transportation of essential goods such as food and fuel

Group Three

Encompasses people most likely to experience severe outcomes (may change depending on the epidemiology of influenza disease):

- Children 6 months to 23 months of age
- Pregnant women
- Persons over 65 years of age
- Persons aged 2–64 years with underlying chronic medical conditions
- Children aged 6 months–18 years on chronic aspirin therapy

Group Four

Healthy individuals who are at lower risk of developing severe complications.

APPENDIX 2: Vaccine Distribution

There are several vaccine distribution options that may be taken when pandemic influenza threatens the health of South Dakotans. The utility of these options will vary greatly depending on the amount of vaccine available from manufacturers.

Possible vaccine supply levels:

- No Vaccine – no vaccine available to immunize any of the priority groups
- Limited Vaccine – a limited number of doses which will not be adequate to vaccine those in the high priority group and those who regularly receive their annual influenza immunization
- Adequate Vaccine – vaccine to immunize all high priority groups and those who annually receive immunizations
- Excess Vaccine – vaccine to immunize all high priority groups, those who annually receive immunizations, and an expanded number of doses for those who normally do not get vaccinated but may with the heightened awareness of a possible pandemic

No Vaccine

In the advent no vaccine is currently available from vaccine manufacturers the primary prevention strategies will revolve around antiviral use (prophylaxis to prevent illness and therapy to decrease the severity of illness), a robust hand hygiene/cough etiquette campaign (Stop It, Don't Spread It), avoiding people who are ill, and early access to quality medical care. Protocols will be put in place for use of investigational new drugs (IND) as deemed appropriate under the guidance of the CDC.

Adequate or Excess Vaccine

With the production of adequate vaccine, the current vaccine distribution methods of public and private providers inoculating the high priority groups and others wishing to receive vaccine should be utilized. SD-DOH will provide information from the CDC concerning appropriate antiviral usage to healthcare professionals, and encourage proper prevention techniques including cough etiquette and hand hygiene.

Limited Vaccine

In the advent that manufacturers cannot supply enough vaccine for all groups targeted for vaccination, the SD-DOH core team will convene to review CDC guidelines pertaining to priority groups. In the event no priority groups have been identified by national agencies, the core team may review, modify, and utilize Appendix 1: Priority Groups, Page 34 for the population of South Dakota.

The next key decision to be made is whether to distribute the limited supply of vaccine through the public or private sector supply chain.

Private Sector

- Various agencies including the SD State Medical Association, SD Association of Healthcare Organizations, Association of Clinic Managers, and others will be convened by the Secretary of Health and SD-DOH core team to discuss the distribution of vaccine to hospitals and clinics across the state through either vaccine distributors or the SD-DOH.

Public

- Planning for the vaccination of individuals identified in the high priority groups will target the use of Community Health Service, Public Health Alliance, Local Health Department, and Indian Health Service facilities located throughout the state of South Dakota. These offices provide a network of facilities throughout the state able to administer vaccine.

The following table lists the proposed planning office location, name, and county served/population.

DRAFT

Appendix ZZ: Pandemic influenza key activities by Phase

	Surveillance	Disease Investigation	Vaccination	Antiviral	Isolation – Quarantine	Mass Care	Mass Fatality	Communications	Command & Control
Phase 1&2	Passive	Normal	Planning	Planning	Normal infection control.	Planning with			
Phase 3 Alert	Passive	Normal	Planning, exercising	Planning, exercising					
Phase 4 Alert	Enhanced	Novel virus	Planning, exercising	Planning, exercising	Advise hospitals on control measures for novel virus.				
Phase 5 Alert	Enhanced	Novel virus	ID priority groups	ID priority groups	Review community control measures. Consider group isolation measures.				
Phase 6 Pandemic	Enhanced, beds, cases	Pandemic strain	Priority groups and mass vaccination if available.	Priority groups.	Implement community control measures, including group isolation.				

Table 2: Proposed Influenza Vaccination Clinic Coordinators

PH = Public Health Alliance Offices, CH = Community Health Services Offices,
LH = Local Health Department, IHS = Indian Health Service

#	County Served	City/Town	Agency Name	County Pop.	Type Clinic	Primary Planner
1	Aurora	Plankinton	Aurora County Community Health	3,058	CH	Aurora County Courthouse, Plankinton SD, 57368 Ph: 605-942-7163
2	Beadle	Huron	Beadle County Community Health	17,023	CH	Beadle County Community Health, Huron, SD 57350-1813 Ph: 605-353-7135
3	Bennett	Martin	Bennett County Community Health	3,574	CH	Bennett County Courthouse, Martin, SD 57551-0460 (Ph: 605-685-1089)
4	Bon Homme	Tyndall	Bon Homme County Community Health	7,260	CH	Bon Homme Co. Community Health, Tyndall, SD 57066-0478 Ph: 605-589-4318
5	Brookings	Brookings	Brookings County Community Health	28,220	CH	Brookings County Community Health, Brookings, SD 57006-3893 Ph: 605-688-5802
6	Brown	Aberdeen	Brown County Community Health	35,460	CH	Brown County Community Health, Aberdeen, SD 57401-4127 Ph: 605-626-2649
7	Brule	Chamberlain	Brule County Public Health Services	5,364	PH	Mid Dakota Public Health Service, Chamberlain SD, 57325 Ph: 605-734-0180
8	Buffalo	Ft. Thompson	Ft. Thompson IHS	2,032	IHS	Ft. Thompson HIS, Ft. Thompson, SD 57339 (Ph: 605-245-2285)
9			Buffalo County Community Health		CH	Buffalo County Community Health, Ft. Thompson, SD 57339-0200 Ph: 605-245-1539
10	Butte	Belle Fourche	Butte County Community Health	9,094	CH	Butte County Community Health, Belle Fourche, SD 57717-1707 Ph: 605-892-2523
11	Charles Mix	Lake Andes	Charles Mix Co Community Health	9,350	CH	Charles Mix County Courthouse, Lake Andes, SD 57356-0220 Ph: 605-487-7094
12		Platte	Charles Mix Co Community Health			Charles Mix County Courthouse, Platte, SD 57369-0984 Ph: 605-337-3996
13		Wagner	Charles Mix Co Community Health			Charles Mix County Courthouse, Wagner, SD 57380-0726 Ph: 605-384-3487
14		Wagner	Wagner IHS		IHS	Wagner HIS, Wagner, SD 57380 Ph: 605-384-3621
15	Clark	Clark	Clark County Community Health	4,143	CH	Clark County Courthouse, Clark, SD 57225-0294 (Ph: 605-532-3168)
16	Clay	Vermillion	Clay County Community Health	13,537	CH	Clay County Courthouse, Vermillion, SD 57069-2097 (Ph: 605-677-6767)
17	Codington	Watertown	Codington County Community Health	25,897	CH	Codington County Courthouse, Watertown, SD 57201-3695 Ph: 605-882-5177
18	Custer	Custer	Custer County Community Health	7,275	CH	SD Department of Health, Custer, SD 57730-1509 (Ph: 605-673-2847)
19	Davison	Mitchell	Davison County Community Health	18,741	CH	Davison County Community Health, Mitchell, SD 57301 Ph: 605-995-8050
20	Day	Webster	Day County Community Health	6,267	CH	Day County Community Health, Webster, SD 57274 (Ph: 605-345-3882)
21	Deuel	Clear Lake	Deuel County Public Health Services	4,498	PH	Deuel County Public Health Services, Clear Lake, SD 57226 Ph: 605-874-2555
22	Dewey	Eagle Butte	Cheyenne River Tribal Health	5,972	IHS	Cheyenne River Tribal Health, Eagle Butte, SD 57625 (Ph: 605-964-1193)
23		Isabel	Dewey County Community Health		CH	Dewey County Community Health, Isabel, SD 57633-0073 Ph: 605-466-2474
24		Timber Lake	Dewey County Community Health			Dewey County Community Health, Timber Lake, SD 57656-0312 PH: 605-865-3587
25	Douglas	Armour	Douglas County Public Health Services	3,458	PH	Douglas County Memorial Hospital, Armour, SD 57313 Ph: 605-724-2758

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#	County Served	City/Town	Agency Name	County Pop.	Type Clinic	Primary Planner
26	Edmunds	Bowdle	Edmunds County Public Health Services	4,367	PH	Bowdle Healthcare Center, Bowdle SD 57428 (Ph: 605-285-6419)
27	Fall River	Hot Springs	Fall River County Community Health	7,453	CH	Fall River County Community Health, Hot Springs, SD 57747-1632 Ph: 605-745-5135
28	Faulk	Faulkton	Faulk County Public Health Services	2,640	PH	Faulk County Healthcare Network, Faulkton SD 57438 Ph: 605-598-4321
29	Grant	Milbank	Grant County Community Health	7,847	CH	Grant County Courthouse, Milbank, SD 57252-2499 (Ph: 605-432-4596)
30	Gregory	Burke	Gregory County Community Health	4,792	CH	Gregory County Courthouse, Burke, SD 57523-0199 (Ph: 605-775-2634)
31	Haakon	Philip	Haakon County Community Health	2,196	CH	Haakon County Courthouse, Philip, SD 57567-0396 (Ph: 605-859-2467)
32	Hamlin	Hayti	Hamlin County Community Health	5,540	CH	Hamlin County Courthouse, Hayti, SD 57241-0163 (Ph: 605-783-3681)
33	Hand	Miller	Hand County Public Health Services	3,741	PH	Hand County Memorial Hospital, Miller, SD 57362 (Ph: 605-853-2147)
34	Hanson	Alexandria	Hanson County Community Health	3,139	CH	Hanson County Community Health, Alexandria, SD 57311-0548 Ph: 605-239-4417
35	Harding	Buffalo	Harding County Community Health	1,353	CH	Harding County Courthouse, Buffalo, SD 57720-0396 (Ph: 605-375-3454)
36	Hughes	Pierre	Hughes County Community Health	16,481	CH	Hughes County Community Health, Pierre, SD 57501-3133 Ph: 605-773-3638
37	Hutchinson	Freeman	Hutchinson County Public Health Services	8,075	PH	Freeman Community Hospital, Freeman, SD 57029 Ph: 605-925-2118
38		Parkston	Hutchinson County Public Health Services			St. Benedict Health Center, Parkston, SD 57366 (Ph: 605-928-4411)
39	Hyde	Highmore	Hyde County Community Health	1,671	CH	Hyde County Courthouse, Highmore, SD 57345-0379 Ph: 605-852-2450
40	Jackson	Kadoka	Jackson County Community Health	2,930	CH	Jackson County Community Health, Kadoka, SD 57543-0564 Ph: 605-837-2240
41	Jerauld	Wessington Springs	Jerauld County Community Health	2,295	CH	Jerauld County Community Health, Wessington Springs, SD 57382-0442 Ph: 605-539-1271
42	Jones	Murdo	Jones County Community Health	1,193	CH	Jones County Community Health, Murdo, SD 57559-0152 Ph: 605-669-3012
43	Kingsbury	DeSmet	Kingsbury County Community Health	5,815	CH	Kingsbury County Courthouse Annex, Desmet, SD 57231-0196 Ph: 605-854-3853
44	Lake	Madison	Lake County Community Health	11,276	CH	Lake County Courthouse, Madison, SD 57042-2940 (Ph: 605-256-5309)
45	Lawrence	Deadwood	Lawrence County Community Health	21,802	CH	Lawrence County Community Health, Deadwood, SD 57732-0604 Ph: 605-578-2660
46		Spearfish	Lawrence County Community Health			Lawrence County Community Health, Spearfish, SD 57783 Ph: 605-642-6915
47	Lincoln	Canton	Lincoln County Community Health	24,131	CH	Lincoln County Community Health, Canton, SD 57013 (Ph: 605-987-4138)
48	Lyman	Kennebec	Lyman County Community Health	3,895	CH	Lyman County Courthouse, Kennebec, SD 57544-0334 Ph: 605-869-2217
49	Marshall	Britton	Marshall County Community Health	4,576	CH	Marshall Community Building, Britton, SD 57430-0082 (Ph: 605-448-2744)
50	McCook	Salem	McCook County Community Health	5,832	CH	McCook County Courthouse, Salem, SD 57058-0354 (Ph: 605-425-2671)
51	McPherson	Eureka	McPherson County Public Health Services	2,904	PH	Eureka Community Hospital, Eureka, SD 57437-0517 (Ph: 605-284-2661)
52	Meade	Faith	Meade County Community Health	24,253	CH	Meade County Community Health, Faith, SD 57626-0082 Ph: 605-967-2150
53		Sturgis	Meade County Community Health			Meade County Courthouse, Sturgis, SD 57785-1452 Ph: 605-347-5650
54	Miner	Howard	Miner County Community Health	2,884	CH	Miner County Courthouse, Howard, SD 57349-0067 (Ph: 605-772-5381)

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#	County Served	City/Town	Agency Name	County Pop.	Type Clinic	Primary Planner
55	Minnehaha	Sioux Falls	Minnehaha County Community Health	148,281	CH	Minnehaha County Community Health, Sioux Falls, SD 57104-6419 Ph: 605-367-5360
56		Sioux Falls	Sioux River Valley Community Health		LH	City of Sioux Falls Health Department, Sioux Falls, SD 57104 Ph: 605-367-8793
57	Moody	Flandreau	Moody County Public Health Services	6,595	PH	309 North Prairie St., Flandreau, SD 57028-1253 (Ph: 605-997-3779)
58	Pennington	Rapid City	Sioux San Hospital	88,565	IHS	Sioux San Hospital, Rapid City, SD 57702 (Ph: 605-355-2500)
59			Pennington County Community Health		CH	Pennington County Community Health, Rapid City, SD 57701-5720 Ph: 605-394-2516
60		Hill City	Pennington County Community Health			Pennington County Community Health, Hill City, SD 57745-0254 Ph: 605-574-2225
61	Perkins	Bison	Perkins County Community Health	3,363	CH	Perkins County Community Health, Bison, SD 57620-0236 Ph: 605-244-5978
62		Lemmon	Perkins County Community Health			Perkins County Community Health, Lemmon, SD 57638-0447 Ph: 605-374-5962
63	Potter	Hoven	Potter County Community Health	2,693	CH	Potter County Community Health, Hoven, SD 57450-0783 Ph: 605-948-2394
64	Roberts	Sisseton	Coteau Des Prairies Clinic	10,016	IHS	Coteau Des Prairies Clinic, Sisseton, SD 57262 (Ph: 605-698-7681)
65		Sisseton	Roberts County Community Health		CH	Roberts County Community Health, Sisseton, SD 57262-1544 Ph: 605-698-4183
66	Sanborn	Woonsocket	Sanborn County Community Health	2,675	CH	Sanborn County Courthouse, Woonsocket, SD 57385-0366 Ph: 796-4510
67	Shannon	Kyle	Kyle Health Center	12,466	IHS	Kyle Health Center, Kyle, SD 57752 Ph: 605-455-2451
68		Pine Ridge	Pine Ridge IHS		IHS	Pine Ridge IHS, Pine Ridge, SD Ph: 605-867-5131
69			Shannon County Community Health		CH	Shannon County Community Health, Pine Ridge, SD 57770-1988 Ph: 605-867-5911
70	Spink	Redfield	Spink County Community Health	7,454	CH	Spink County Courthouse, Redfield, SD 57469-1266 Ph: 605-472-2434
71	Stanley	Ft. Pierre	Stanley County Community Health	2,772	CH	Stanley County Courthouse, Ft. Pierre, SD 57532-0194 Ph: 605-223-7740
72	Sully	Onida	Sully County Community Health	1,556	CH	Sully County Courthouse, Onida, SD 57564 (Ph: 605-258-2750)
xx	Todd					
73	Tripp	Winner	Tripp County Public Health Services	6,430	PH	Winner Regional Healthcare Center, Winner, SD 57580 (Ph: 605-842-7166)
74	Turner	Viborg	Turner County Public Health Services	8,849	PH	Pioneer Memorial Hospital, Viborg, SD 57070-0368 Ph: 605-326-5161 Ext. 3051
75	Union	Elk Point	Union County Community Health	12,584	CH	Union County Courthouse, Elk Point, SD 57025 (Ph: 605-356-2644)
76	Walworth	Mobridge	Walworth County Public Health Services	5,974	PH	Mobridge Regional Hospital, Mobridge, SD 57601 (Ph: 605-845-8127)
77	Yankton	Yankton	Yankton County Community Health	21,652	CH	Yankton County Courthouse, Yankton, SD 57078-0844 Ph: 605-260-4400 Option 1
78	Ziebach	Dupree	Ziebach County Community Health	2,519	CH	Ziebach County Courthouse, Dupree, SD 57623-0068 (Ph: 605-365-5163)

STATE OF SOUTH DAKOTA EMERGENCY OPERATIONS PLAN RESPONSIBILITIES MATRIX (Defined by Agency Capabilities)		EMERGENCY SUPPORT FUNCTIONS 1 - 15	TRANSPORTATION (1) Systems (2) Transport	COMMUNICATION	PUBLIC WORKS AND ENGINEERING	FIREFIGHTING (1) Wildland (2) Structure	INFORMATION AND PLANNING	MASS CARE	RESOURCE SUPPORT (1) State (2) Wildland Fire	HEALTH SERVICES (1) Body (2) Mind	SEARCH AND RESCUE	HAZARDOUS MATERIALS	FOOD	ENERGY	ANIMAL HEALTH	DEBRIS CLEARANCE	LAW ENFORCEMENT
AGENCY			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Agriculture						S	S					S			S		
Agriculture <i>Wildland Fire Suppression</i>				S		P1/S2	S		P2/S1								
Animal Industry Board							S			S		S	S		P		
Attorney General							S										S
Board of Regents				S			S	S		S		S	S		S		S
Bureau of Administration			P2		P		S		S					P			
Bureau of Information & Telecommunications				P			S		S								
Bureau of Information & Telecommunications <i>State Radio</i>				S			S										
Bureau of Personnel							S		S								
Commerce & Regulations				S	S		S		S	S		S					S
Commerce & Regulations <i>Fire Marshal</i>				S	S	P2/S1	S			S	S	S					
Commerce & Regulations <i>Highway Patrol</i>			S	S			S		S		S	S					P
Corrections						S	S	S	S				S			S	
Education & Cultural Affairs							S	S					S				
Environment & Natural Resources					S		S			S		P	S		S	S	
Game, Fish & Parks			S	S	S	S	S		S		S	S			S	S	S
Health				S			S	S	S	P1/S2		S	S		S		
Human Services				S			S	S	S	P2/S1			S				
Labor							S		S								
Military & Veterans Affairs <i>Division of Emergency Mgmt.</i>				S	S		P	P	P1/S2		P		P	S		S	
Military & Veterans Affairs <i>South Dakota National Guard</i>			S	S	S	S	S	S	S	S	S	S	S			S	S
Office Of The Governor				S			S		S								S
Revenue				S			S		S								S
Social Services							S	S		S			S	S			
South Dakota Housing Development Authority					S		S	S									
South Dakota Office of Tribal Government Relations				S			S										
Tourism				S			S										
Transportation			P1/S2	S	S		S		S			S				P	
Volunteer Organizations <i>(State Support)</i>				S			S	S		S	S		S			S	

APPENDIX 3: Antiviral Medication Distribution

As with influenza vaccine availability, there are several key issues which need to be addressed in reference to antiviral medications. The first is the availability within the state at the time a potential pandemic influenza strain starts to circulate (human-to-human transmission). There are several options which need to be considered:

- Federal purchase of existing supply and subsequent distribution to states
- Federal stockpile with distribution to states
- State government reserves
- State purchase of antivirals
- Expanded provider inventory
- Inventory monitoring

In addition, a set of controls for distribution of antivirals will be developed by the SD-DOH core team. These controls will disseminate information on the appropriate dosage of antiviral medication for treatment and therapy (following CDC recommendations and guidelines). The SD-DOH core team may also target priority groups for antiviral use (see Appendix 1: Priority Groups, Page 34), develop algorithms for administration (positive influenza rapid antigen test) and develop the ability to track antiviral supply, distribution, and use through an electronic data management system.

Federal purchase

At this time there has been little discussion at the federal level regarding this option. If the state does receive antivirals through this method, an antiviral distribution plan will be coordinated using the principles developed in Appendix 2: Vaccine Distribution, Page 35.

Federal stockpile

The United States has a limited supply of influenza antiviral medication stored in the Strategic National Stockpile (SNS) for emergency situations like outbreak situations or in the event of an influenza pandemic. The SNS currently stores the antiviral amantadine and is looking into the possibility of building a store of the neuraminidase inhibitor, oseltamivir.

State reserves

At this time the State of South Dakota has not conducted an assessment on the cost and effectiveness of storing antiviral medications in South Dakota. Two storage methods would need to be evaluated. While a central location would allow for easier inventory and stock rotation, several caches across the state would allow for quicker access during an emergency response.

State purchase

The State of South Dakota may purchase antivirals prior to and in preparation for the onset of an influenza pandemic.

Expanded provider inventory

Many pharmacies across the state carry antiviral medication in both over-the-counter and prescription forms. Voluntary expansion of these stores along with strict monitoring of stock and expiration dates would create an enlarged inventory among providers in South Dakota.

Inventory monitoring


If development, an antiviral monitoring system would provide an accurate accounting of the antivirals available within the state at any time and weekly/monthly use patterns can be identified which will help private providers and public health determine the state's need during a normal influenza season and allow for estimates of need during a pandemic.

Which ever method will be utilized, there is still the prerequisite to assess the antiviral medication need across communities within South Dakota before distribution can take place. Development of a web-based survey, utilizing the same properties as the vaccine assessment application currently under development, will drastically decrease the staff needed to conduct the assessment which may then be used for other activities.

After the assessment has been performed and needs identified in the community, distribution of the antiviral medication can then commence. Just as with the vaccine distribution, several approaches may be utilized depending on supply (limited vs. adequate), use (prophylaxis vs. therapy), and persons identified for treatment and prophylaxis (see Appendix 1: Priority Groups, Page 34). The vaccine distribution plan developed in Appendix 2: Vaccine Distribution, Page 35 may also be used for antiviral distribution planning.

Table 6: Antiviral Medication Use

Drug Name	Effective Against	Approved Use	Age Guidelines
Amantadine (Symmetrel)	Influenza A	Prophylaxis and Treatment	Persons 1 year of age and older
Rimantadine (Flumadine)	Influenza A	Prophylaxis	Persons 1 year of age and older
		Treatment	Persons 18 years of age and older
Oseltamivir (Tamiflu)	Influenza A and B	Prophylaxis	Persons 13 years of age and older
		Treatment	Persons 1 year of age and older
Zanamivir (Relenza)	Influenza A and B	Treatment	Persons 7 years of age and older

 VACCINE ADVERSE EVENT REPORTING SYSTEM 24 Hour Toll-Free Information 1-800-822-7967 P.O. Box 1100, Rockville, MD 20849-1100 PATIENT IDENTITY KEPT CONFIDENTIAL		For CDC/FDA Use Only VAERS Number _____ Date Received _____	
Patient Name: Last _____ First _____ M.I. _____ Address _____ _____ _____ City _____ State _____ Zip _____ Telephone no. (____) _____		Vaccine administered by (Name): Responsible Physician _____ Facility Name/Address _____ _____ _____ City _____ State _____ Zip _____ Telephone no. (____) _____	
Form completed by (Name): _____ Relation <input type="checkbox"/> Vaccine Provider <input type="checkbox"/> Patient/Parent to Patient <input type="checkbox"/> Manufacturer <input type="checkbox"/> Other Address (if different from patient or provider) _____ _____ _____ City _____ State _____ Zip _____ Telephone no. (____) _____			
1. State	2. County where administered	3. Date of birth mm / dd / yy	4. Patient age
		5. Sex <input type="checkbox"/> M <input type="checkbox"/> F	6. Date form completed mm / dd / yy
7. Describe adverse events(s) (symptoms, signs, time course) and treatment, if any		8. Check all appropriate: <input type="checkbox"/> Patient died (date mm / dd / yy) <input type="checkbox"/> Life threatening illness <input type="checkbox"/> Required emergency room/doctor visit <input type="checkbox"/> Required hospitalization (____ days) <input type="checkbox"/> Resulted in prolongation of hospitalization <input type="checkbox"/> Resulted in permanent disability <input type="checkbox"/> None of the above	
9. Patient recovered <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN		10. Date of vaccination mm / dd / yy AM Time _____ PM	11. Adverse event onset mm / dd / yy AM Time _____ PM
12. Relevant diagnostic tests/laboratory data			
13. Enter all vaccines given on date listed in no. 10			
Vaccine (type)		Manufacturer	Lot number
a. _____		_____	_____
b. _____		_____	_____
c. _____		_____	_____
d. _____		_____	_____
			No. Previous Doses

14. Any other vaccinations within 4 weeks prior to the date listed in no. 10			
Vaccine (type)		Manufacturer	Lot number
a. _____		_____	_____
b. _____		_____	_____
			No. Previous doses

			Date given

15. Vaccinated at: <input type="checkbox"/> Private doctor's office/hospital <input type="checkbox"/> Military clinic/hospital <input type="checkbox"/> Public health clinic/hospital <input type="checkbox"/> Other/unknown		16. Vaccine purchased with: <input type="checkbox"/> Private funds <input type="checkbox"/> Military funds <input type="checkbox"/> Public funds <input type="checkbox"/> Other/unknown	
17. Other medications			
18. Illness at time of vaccination (specify)		19. Pre-existing physician-diagnosed allergies, birth defects, medical conditions (specify)	
20. Have you reported this adverse event previously? <input type="checkbox"/> No <input type="checkbox"/> To health department <input type="checkbox"/> To doctor <input type="checkbox"/> To manufacturer		Only for children 5 and under 22. Birth weight _____ lb. _____ oz. 23. No. of brothers and sisters _____	
21. Adverse event following prior vaccination (check all applicable, specify)		Only for reports submitted by manufacturer/immunization project 24. Mfr./Imm. proj. report no. _____ 25. Date received by mfr./imm.proj. _____	
<input type="checkbox"/> In patient <input type="checkbox"/> In brother or sister		26. 15 day report? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Adverse Event _____ Onset Age _____ Type Vaccine _____ Dose no. In series _____ _____ _____ _____		27. Report type <input type="checkbox"/> Initial <input type="checkbox"/> Follow-Up	
Health care providers and manufacturers are required by law (42 USC 300aa-25) to report reactions to vaccines listed in the Table of Reportable Events Following Immunization. Reports for reactions to other vaccines are voluntary except when required as a condition of immunization grant awards.			

Appendix 5: Enhanced Influenza-like Illness Report Card and Laboratory Submission Form

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

~Under development~

Table 7 : Estimated Health Impact on South Dakota**Estimated influenza-associated mortality (number of deaths)**

	Gross Attack Rate		
	15%	25%	35%
Minimum	194	324	455
Most Likely	321	536	750
Maximum	528	882	1232

Estimated influenza-associated hospitalizations (number of cases)

	Gross Attack Rate		
	15%	25%	35%
Minimum	489	870	1218
Most Likely	1362	2269	3176
Maximum	1746	2909	4073

Estimated influenza-associated outpatient visits (number of cases)

	Gross Attack Rate		
	15%	25%	35%
Minimum	47,923	79,872	111,820
Most Likely	61,131	101,884	142,637
Maximum	86,979	144,965	202,952

Appendix ZZ: South Dakota laws cited.

34-22-41. "Public health emergency" defined. For the purposes of §§ 34-3-26, 34-16-22 to 34-16-25, inclusive, and 34-22-41 to 34-22-44, inclusive, a public health emergency is an occurrence or imminent threat of an illness, health condition, or widespread exposure to an infectious or toxic agent that poses a significant risk of substantial harm to the affected population.

Source: SL 2002, ch 168, § 1.

34-22-42. Secretary may declare public health emergency--Contents of order. The secretary of health, with the consent of the Governor, may declare a public health emergency as defined by § 34-22-41. In declaring a public health emergency, the secretary shall issue an order that specifies:

- (1) The nature of the public health emergency;
- (2) The geographic area subject to the declaration;
- (3) The conditions that have brought about the public health emergency; and
- (4) The expected duration of the state of public health emergency, if less than thirty days.

Source: SL 2002, ch 168, § 2.

34-22-43. Department primarily responsible for public health emergency response--Scope of authority--Promulgation of rules. The department shall have primary jurisdiction, responsibility, and authority for responding to a public health emergency declared pursuant to § 34-22-42 including:

- (1) Planning and executing public health emergency assessment, mitigation, preparedness, and response;
- (2) Coordinating public health emergency response between state and local authorities;
- (3) Collaborating with relevant federal, state, tribal, and local authorities; and
- (4) Organizing public information activities regarding public health emergency response operations.

The Department of Health may promulgate rules, pursuant to chapter 1-26, to implement the provisions of this section.

Source: SL 2002, ch 168, § 3.

34-22-44. Termination of declared emergency--Renewal. Any public health emergency declared pursuant to § 34-22-42 shall be terminated automatically after thirty days unless renewed by the secretary under the same standards and procedures set forth in § 34-22-42.

Source: SL 2002, ch 168, § 4.

34-1-17. Orders, rules, and licensing for protection of public health--Matters covered. The Department of Health may adopt and enforce, subject to chapter 1-26, orders and rules necessary to preserve and protect the public health and may regulate, by requiring licenses or other appropriate means, control, and, in proper cases, prohibit and suppress any of the following matters:

- (1) The manufacture into articles of commerce, other than food, of diseased, tainted, or decayed animal or vegetable matter;
- (2) The location of cemeteries and the removal and burial of the dead;
- (3) The management of lying-in houses and boarding places for infants, and the treatment of infants therein;
- (4) The construction and equipment, in respect to sanitary conditions, of schools, hospitals, prisons, and other public institutions;
- (5) The treatment in hospitals and elsewhere of persons suffering from communicable diseases, the disinfection and quarantine of persons and places in case of such disease, and the reporting of sickness and deaths therefrom;
- (6) The distribution of biological products to be used for the prevention and treatment of communicable diseases;

- (7) the diagnosis, control, and treatment of tuberculosis; and
- (8) The minimum sanitation requirements for tattooing and body piercing as defined in § 9- 34-17, including premises, equipment, methods of operation, and freedom from communicable disease.

Source: SDC 1939, § 27.0104 (3); SL 1949, ch 105, § 5; SDC Supp 1960, § 27.0104 (4); SL 1963, ch 380, § 10; revised pursuant to SL 1972, ch 15, §§ 3, 4; SL 1987, ch 29, § 65; SL 1992, ch 239, § 1; SL 1995, ch 189, § 2.

CHAPTER 33-15 EMERGENCY MANAGEMENT

33-15-8. Authority of Governor in time of disaster, terrorist attack, or emergency. In the event of disaster, war, act of terrorism as defined in state law, or emergency that is beyond local government capability, the Governor:

- (1) May assume direct operational control over all or any part of the emergency management functions within the state which may affect all or any portion of the state;
- (2) May declare an emergency or disaster to exist in the stricken area and employ emergency management to assist local authorities to affect relief and restoration;
- (3) May call upon and use any facilities, equipment, other nonmedical supplies, and resources available from any source, other than personal or private funds, in order to carry out the purposes of this chapter by contributing to the expense incurred in providing relief in such amounts as the Governor shall determine. However, nothing in this subdivision may be construed to authorize the taking of firearms, as defined in subdivision 22-1-2(16), without the consent of the owner;
- (4) May suspend the provisions of any rules of any state agency, if strict compliance with the provisions of the rule would in any way prevent, hinder, or delay necessary action in managing a disaster, war, act of terrorism, or emergency, including fire, flood, earthquake, severe high and low temperatures, tornado storm, wave action, oil spill, or other water or air contamination, epidemic, blight, drought, infestation, explosion, riot, or hostile military or paramilitary action, which is determined by the Governor to require state or state and federal assistance or actions to supplement the recovery efforts of local governments in alleviating the damage, loss, hardship, or suffering caused thereby;
- (5) May control the ingress and egress in a designated disaster or emergency area, the movement of vehicles upon highways within the area, the movement of persons within the area, and the occupancy of premises within the area;
- (6) May procure, acquire, store, distribute, and dispense any pharmaceutical agents or medical supplies located within the state as may be reasonable and necessary to respond to the disaster, emergency, or act of terrorism;
- (7) May appoint and prescribe the duties of such out-of-state health care providers as may be reasonable and necessary to respond to the disaster, emergency, or act of terrorism;
- (8) May provide for the examination and safe disposal of any dead body as may be reasonable and necessary to respond to the disaster, emergency, or act of terrorism; and
- (9) May provide for the protection, construction or reconstruction, repair, and maintenance of public or private transportation facilities.

The powers granted to the Governor under this section shall remain in effect for a period of six months and may be restored for one or more successive six-month periods by declaration of the Governor that the conditions permitting such powers persist.

Source: SL 1949, ch 236, § 6; SL 1951, ch 285, § 6; SL 1955, ch 236, § 3; SDC Supp 1960, § 41.01C05 (1); SL 1977, ch 271, § 4; SL 1989, ch 283, § 1; SL 2002, ch 162, §§ 1, 2; SL 2004, ch 223, § 1.

34-22-9. State-wide system for disease control and treatment--Scope of program. The Department of Health shall establish and direct the operations of a state-wide system for communicable disease prevention, control, and treatment. The department may promulgate rules pursuant to chapter 1-26 to:

- (1) Conduct communicable disease surveillance which includes detection, assessment, and analysis;
- (2) Prescribe criteria for communicable disease case definitions;
- (3) Prescribe procedures for communicable disease case and contact notification, referral, and management;
- (4) Prescribe methods and procedures for the prevention and control of communicable disease;
- (5) Prescribe methods and procedures for the control of communicable disease patients and carriers;
- (6) Prescribe medical and posttreatment supervision measures for communicable disease patients and carriers;
- (7) Prescribe methods and procedures for the prevention and control of occupationally-related communicable diseases; and
- (8) Prescribe procedures for universal precautions for communicable disease prevention by health care facilities and workers.

Source: SL 1963, ch 380, § 5 (1); SL 1992, ch 246.

DRAFT

XI. Glossary

Characterization	Identification of the strain of an influenza virus such as A/Panama
DMORT	A coordinated effort of forensic experts and mortuary personnel to effectively handle a mass fatality disaster
Endemic	A disease that is continually present in a community or a region
Enzootic	Affecting or peculiar to animals of a specific geographic area.
Epidemic	The occurrence of a disease in a community or region clearly in excess of normal expectations
Epizootic	Affecting a large number of animals at the same time within a particular region or geographic area.
Health Alert Network	An Internet based program used to communicate health and emergency messages
Influenza-like illness (ILI)	The presence of fever >100° F, with a cough and/or sore throat
JIC	A central location for involved agencies to coordinate public information activities and a forum for news media representatives to receive disaster or emergency information
Novel virus	A virus rarely, or not previously known to infect humans
Pandemic	The occurrence of a disease in excess of normal expectations in extensive regions, countries and continents
Strategic National Stockpile (SNS)	A federal cache of medical supplies and equipment to be used in emergency and disaster situations
Subtype	Identification of influenza A viruses according to the hemagglutinin (H) and neuraminidase (N) components of the virus, such as H1N1 or H3N2
Surveillance	The collection, analysis and dissemination of data
Syndromic	Occurring as part of a complex of signs and symptoms suggesting the existence of an undesirable condition or disease

XII. List of Acronyms

ACIP	Advisory Committee on Immunization Practices
CDC	Centers for Disease Control and Prevention
CERC	Crisis/Emergency Risk Communications
DOH	Department of Health
DMORT	Disaster Mortuary Operations Team
EIS	Epidemic Intelligence Service
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
ESS	Epidemiological Services Section
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
HAN	Health Alert Network
ICP	Infection Control Professional
ICS	Incident Command System
ILI	Influenza-like illness
IND	Investigational New Drug
JIC	Joint Information Center
AIB	South Dakota Animal Industry Board
DEM	Division of Emergency Management
DENR	Department of Environment and Natural Resources
LHD	Local Health Department
LRN	Laboratory Response Network
NIMS	National Incident Management System
NRP	National Response Plan
NREVSS	National Respiratory and Enteric Virus Surveillance System
OIE	World Organization for Animal Health
ORH	Office Rural Health
PHIX	Public Health Information Exchange
PIO	Public Information Officer
PPE	Personal Protective Equipment
SEOC	State Emergency Operations Center
SNS	Strategic National Stockpile
VAERS	Vaccine Adverse Events Reporting System
VIS	Vaccine Information Statement
VOAD	Voluntary Organizations Active in Disasters
WHO	World Health Organization

Internet Resources on Pandemic Influenza

U.S. Federal Departments

Department of Defense - <http://www.defenselink.mil/>

Department of Education - <http://www.ed.gov/>

Department of Energy - <http://www.energy.gov/engine/content.do>

Department of Health and Human Services - <http://www.hhs.gov/>

National Vaccine Program Office <http://www.dhhs.gov/nvpo>
Office of the Assistant Secretary for Public Health Emergency Preparedness (ASPHEP) – <http://hhs.gov/asphep>
Department of Homeland Security - <http://www.dhs.gov/dhspublic/index.jsp>
National Disaster Medical System- <http://ndms.dhhs.gov/index.html>
Federal Emergency Management Agency (FEMA) - <http://www.fema.gov/>
Department of Justice - <http://www.usdoj.gov/>
Department of State - <http://www.state.gov/>
Department of Transportation - <http://www.dot.gov/>
Department of Veterans Affairs - <http://www.va.gov/>

U.S. Government Agencies

CDC – www.cdc.gov
Food and Drug Administration (FDA) - <http://www.fda.gov/>
HRSA - <http://www.hrsa.gov/>
National Institute of Health (NIH) - <http://www.nih.gov/>
NIH, National Institute of Allergy and Infectious Diseases-
<http://www.niaid.nih.gov/>

Organizations

Association of State and Territorial Health Officials (ASTHO) -
<http://www.astho.org/>
Infectious Disease Society of America www.idsociety.org
National Foundation for Infectious Diseases www.nfid.org
Institute of Medicine (IOM) - <http://www.iom.edu/>
World Health Organization (WHO) – www.who.org